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Message Text

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INFO OCT-01 ISO-00 CIAE-00 PM-03 INR-07 L-02 ACDA-05

NSAE-00 PA-01 PRS-01 SP-02 USIA-06 TRSE-00 SAJ-01

EB-07 OC-05 CCO-00 /053 W
---------- 000641
R 211500Z FEB 75
FM USMISSION NATO
TO SECSTATE WASHDC 237
SECDEF WASHDC
INFO JCS ('6) WASHDC
DCA WASHDC

C O N F I D E N T I A L SECTION 1 OF 2 USNATO 0965

E.O. 11652: GDS
TAGS: ETEL, MARR, NATO
SUBJECT: INITIAL VOICE SWITCHED NETWORK (IVSN) SPECIFICAION

NOFORN

REFS: A. STATE 283839
B. USNATO 678
C. USNATO 793
D. STATE 35159

SUMMARY: ON FEBRUARY 18, 1975, NICSMA GAVE AN INEFFECIVE BRIEFING ON IVSN SPECIFICATIONS TO NATIONAL REPRESENTATIVES. THROUGH INTER-VENTION WITH DEPUTY DIRECTOR GENERAL OF NICSMA (KISSINGER),MISSION OBTAINED ADDITIONAL INFORMATION. THIS INFORMATION ELABORATES ON USNATO 793(REFC), BUT DOES NOT SHOW CHANGE IN BASIC NICSMA POSITION THAT SPECIFICATIONS MUST BE UNBIASED. MISSION BELIEVES INSISTENCE ON CHANGES PROPOSED IN STATE 283839 WOULD DAMAGE US IMAGE AND THEREFORE RECOMMENDS ACCEPTANCE OF THE SPECIFICATION AS PREPARED BY NICSMA. END SUMMARY.

1. ON FEBURARY 18, 1975 NICSMA PRESENTED THE BRIEFING MENTIONED IN USNATO 678 (REF B). THE BRIEFING ITSELF WAS DISAPPOINTING TO CONFIDENTIAL

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ALL NATIONAL REPRESENTATIVES BECAUSE NICSMA SPED THROUGH CONSIDERABLE TECHNICAL DETAIL BUT DECLINED TO MAKE THE SAME INFORMATION AVAILABLE IN WRITTEN FORM. THE DEPUTY DIRECTOR GENERAL (KISSINGER), LEADING THE BRIEFING TEAM, RESISTED NATIONAL

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REQUESTS FOR COPIES FOR BRIEFING SLIDES ON THE GROUNDS THAT THE INFORMATION WAS IN ESSENCE LIFTED DIRECTLY FROM THE SPECIFICATION AND THEREFORE SHOULD NOT BE RELEASED PREMATURELY. THIS STAND DID NOT PLEASE THE NATIONAL REPRESENTATIVES, AND SOME MAY MAKE AN ISSUE OF IT. FYI: MISSION UNDERSTANDS THAT NICSMA IS PREPARTING A SUMMARY OF THE BRIEFING FOR RELEASE TO NATIONS, BUT THE "PUBLIC RELATIONS" DAMAGE HAS ALREADY BEEN DONE. END FYI.

2. MISSION REP (GENTRY) DISCUSSED US NEEDS FOR INFORMATION WITH DEPUTY DIRECTOR GENERAL IN SEMI-PROVATE CONVERSATION. AS A RESULT, NICSMA PROVIDED INFORMALLY A NARRATIVE VERSION OF THE SPECIFICATION INFORMATION PERTAINING TO SYSTEM FEATURES ADDRESSED IN STATE 283839(REF A). US DEFENSE COMMUNICATIONS FIELD OFFICE PERSONNEL REVIEWED THE NICSMA PAPER AND CONSULTED WITH NICSMA ENGINEERS TO CLARIFY SOME POINTS. DRAWING FROM THE REVIEWED DOCUMENT, MISSION PROVIDES BELOW THE AVAILABLE DETAILED ON CERTAIN PORTIONS OF THE IVSN SWITHC SPECIFICATION.

3. CALL SUPERVISION SIGNALS. NICSMA LEAVES OPEN TO BIDDER WHETHER SEIGE AND RELEASE SIGNALS ARE ON A PER-CHANNEL BASIS (EITHER IN-BAND OR OUT OF BAND) OR THE COMMON SIGNALLING CHANNEL. ANY BIDDER WHO ELECTS PER-CHANNEL METHOD MUST SHOW THAT HIS SCHEME MEETS THE FOLLOWING OPERATIONAL OBJECTIVES:

A. IT MUST BE A "POSITIVE" SYSTEM IN THAT IT MUST PROVIDE SOME FORM OF CONFIRMATION OR TONE GUARD TO PROTECT AGAINST FALSE SIGNALS.

B. SIGNALLING TONE FREQUENCIES MUST BE SELECTED TO MINIMIZE THE POSSIBILITY OF FALSE CHANNEL SEIZURE OR RELEASE BY VOICE AND NOISE SIGNALS.

C. SUPERVISORY SIGNALS MUST BE COMPATIBLE WITH THE OPERATING CHARACTERISTICS OF ALL IVSN TERMINAL AND LINE EQUIPMENT TO PREVENT SIGNALS OF THIS CONNECTED EQUIPMENT FROM INTERFERING WITH THE SUPERVISORY SIGNALS.
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D. THE SIGNALS MUST BE COMPATIBLE WITH THE PLANNED IVSN TONE SCHEME TO PREVENT INFORMATION TONES OR ANY TONE INTERMODULATION PRODUCTS FROM IMITATING SUPERVISION SIGNALS.

E. THE SIGNAL MUST BE COMPATIBLE WITH NATO AND CIVIL TELEPHONE SYSTEM TRANSMISSION PLANT CHARACTERISTICS TO PREVENT DELETERIOUS EFFECTS WHICH MIGHT ARISE FROM LEVEL CHANGES, FADING, AND THE LIKE. FYI: NICSMA IS AWARE OF POTENTIAL PROBLEMS ASSOCIATED WITH OUT-OF-BAND SIGNALLING AND WILL INCLUDE PROTECTIVE PROVISIONS IN SPECIFICATION. ALSO, MISSION UNDERSTANDS THAT GERMAN AUTOKO SWITCH MAY ENCOUNTER DIFFICULTY IN THIS RESPECT. END FYI.

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4. SIGNALLING CHANNEL TRANSMISSION RATE. NICSMA REQUIRES EITHER 2400 OR 1200 BITS PER SECOND. A BIDDER CHOOSING 1200 BITS PER SECOND MJST DEMONSTRATE FULLY THAT THIS RATE WILL MEET ALL OF THE STATED TRAFFIC HANDLING AND PROJECTED SYSTEM CONTROL REQUIREMENTS. NICSMA ALSO REQUIRES AT LEAST -5 PER CENT EXPANSION CAPABILITY IN SIGNALLING MESSAGE FORMATS. THIS REQUIREMENT DOES NOT REPEAT NOT RELATE TO TRANSMISSION CAPACITY OF THE SIGNALLING CHANNEL BUT ONLY TO "SPARE"SUPERVISORY MESSAGE FORMATS.

5. SIGNALLING CHANNEL OPERATING MODE. THE SIGNALLING CHANNEL MUST BE FOUR-WIRE FULL DUPLEX. (OPERATION WITH THE PROPOSED DOLCE CRYPTO EQUIPMENT REQUIRES A FULL DUPLEX XYNCHRONOUS CHANNEL). THIS REQUIREMENT DOES NOT APPLY TO THE MANNER IN WHICH THE SWITCH PROCESSES THE SUPERVISORY SIGNALS. THAT IS, THE SWITCH CAN FUNCTION AS IF THE CHANNEL WERE HALF DUPLEX BUT THE SYSTEM MUST MEET THE TRAFFIC HANDLING REQUIREMENTS.

6. CCITT NO 6. NICSMA HAS ADOPTED CCITT NO 6 AS THE BASELINE SIGNALLING SYSTEM FOR EVALUATION AND COMPARISON. THIS STANDARD, UNMODIFIED, DOES NOT ACCOMMODATE ALL MILKTARY REQUIREMENTS, SO NICSMA WILL ACCEPT DEVIATIONS FROM IT. HOWEVER, BIDDERS MUST SHOW HOW THEIR PROPOSED DEVIATIONS FIT IN WITH THEIR PROPOSED ROUTING SCHEME. (THE SPECIFICATION LEAVES THE ROUTING SCHEME OPEN TO THE BIDDER.) THEY ALSO MUST SHOW HOW THE FUNCTIONAL REQUIREMENTS OF THE IVSN ARE MET. IN ESSENCE, ALTHOUGH CCITT NO 6 IS THE BASELINE, NICSMA DOES NOT PRECLUDE DEVIATIONS.
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INFO OCT-01 ISO-00 CIAE-00 PM-03 INR-07 L-02 ACDA-05

NSAE-00 PA-01 PRS-01 SP-02 USIA-06 TRSE-00 SAJ-01

EB-07 OC-05 CCO-00 /053 W
---------- 000737
R 211500Z FEB 75
FM USMISSION NATO
TO SECSTATE WASHDC 238
SECDEF WASHDC
INFO JCS (J6) WASHDC
DCA WASHDC

C O N F I D E N T I A L SECTION 2 OF 2 USNATO 0965

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7. ENCRYPTION OF THE SIGNALLING CHANEL. NICSMA REQUIRES THAT THE PROPOSED COMMON CHANNEL SIGNALLING SCHEME BE FULLY CAPABLE OF ACCEPTING NATO DOLCE-TYPE ENCRYPTION EQUIPMENT WHEN THIS BECOMES AVAILABLE. THE SPECIFICATIONS WILL INCLUDE DOLCE INTERFACE DETAILS. BIDDERS MUST BE ABLE TO DEMONSTRATE THAT THEIR PROPOSALS MEET STATED CIITERIA FOR SYCHRONIZATION, FRAM-ING AND FRAME DETECTION, DRIFT COMPENSATION, AND ELECTRICAL INTERFACE.

8. SIGNALLING CHANNEL RESTORATION. WITHIN INTERSWITCH TRUNK GROUPS, THOSE TRUNKS WHICH MAY BE USED AS SIGNALLING CHANNELS WILL BE PREDESIGNATED WITH CLASS MARKS IN THE SWITCH. THE NUMBER OF TRUNKS SO DESIGNATED MAY RANGE FROM ONE UP TO THE TOTAL NUMBER OF TRUCNKS IN THE GROUP. UPON FAILURE OF THE SIGNALLING CHANNEL IN USE, THE SWITICH MUST AUTOMATICALLY SELECT ONE OF THE PRE-DESIGNATED TRUNKS AND ESTABLISH IT AS THE SIGNALLING CHANNEL.

9. THE ADDITIONAL INFORMATION WHICH THE MISSION OBTAINED FILLS IN SOME DETAILS AND, IN SOME INSTANCES, MODIFIES TECHNICAL CHARACTERISTICS REPORTED IN USNATO 793 (REF C). HOWEVER, IT CONFIDENTIAL

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DOES NOT SHOW A CHANGE IN THE NICSMA DECISION TO ISSUE A SPECIFICATION CAREFULLY CONSTRUCTED NIETHER TO FAVOR NOR TO PENALIZE LEADING CONTENDERS. NICSMA HAS NOT ACCEPTED ALL OF THE FEATURES PROPOSED IN STATE 283839 (REF A). THE DIRECTOR GENERAL NICSMA INSISTS THAT THE KEY ELEMENTS IN HIS GUIDANCE FROM THE NICS POLICY COMMITTEE ARE TO PROCURE SWITCHES "OFF-THE-SHELF" AND TO REQUIRE COMMON-CHANNEL SIGNALLING. HE RECONGIZES THAT THE LATTER ELEMENT IS NOT FULLY CONSISTENT WITH THE FORMER, BUT HE INTENDS TO ABIDE BY THE "OFF-THE-SHELF" CRITIEERIA AS CLOSELY AS POSSIBLE. THEREFORE, HE MAINTAINS THAT HE CANNOT IMPOSE RESTRICITVE REQUIREMENTS WHICH HE CANNOT JUSTIFY AS IVSN SYSTEM REQUIREMENTS. NATO HAS NOT ESTABLISHED SPECIFIC INTEROPERABILITY REQUIREMENTS FOR THE IVSN SWITTCHES, SO FEATURES CONTRIBUTING TO INTEROPERABILITY WITH NATIONAL SYSTEMS MUST BE TREATED AS "DESIRABLE" RATHER THAN "REQUIRED".

10. THE MISSION CAN ADD LITTLE TO THE ARGUMENTS IN USNATO 793 (REF C) ADVOCATING US ACCEPTANCE OF THE NICSMA POSITION. THE DECREASED VALUE OF THE DOLLAR IN FOREIGN EXCHANGE FAVORS US BIDDERS. MISSION HAD INFFORMALLY OBTAINED INFORMATION THAT LEADING GERMAN CONTENDER HAS DIFFICULTY WITH SOME REQUIREMENTS (NOT RELATED TO SIGNALLING) IN SPECIFICATION. MISSION BELIEVES THAT US BIDEERS ARE IN GOOD COMPETITIVE POSITION.

11. THE US CONSISTENTLY HAS TAKEN A STAND FOR FREE AND FAIR COMPETION. WE OBJECTED STRONGLY TO THE DISCRIMINATORY TREATMENT OF US BIDDERS ON RECENT NATO HAWK REPAIR PARTS

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PROCUREMENTS. THE SECRETARY OF DEFENSE, AT THE DECEMBER 1974 MINISTERIAL MEETING OF THE DEFENSE PLANNING COMMITTEE, CHIDED SOME OF HIS COLLEAGUES FOR USING THE NICS PRODUCTION-SHARING PROCEURES AS A MEANS TO CIRCUMVENT FAIR COMPETION. THE MISSION BELIEVES THAT US GOVERNMENT INSISTENCE ON RESTRICTIVE PROVISIONS IN THE IVSN SWICH SPECIFICATIONS WOULD DAMAGE OUR IMAGE OF THE EYES OF OUR ALLIES. MISSION THEREFORE RECOMMENDS THAT THE US ACCEPT TBESE SPECIFICATIONS AS NICSMA PREPARED THEM
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Control Number: n/a
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Draft Date: 21 FEB 1975
Decaption Date: 28 MAY 2004
Decaption Note: 25 YEAR REVIEW
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Authority: GolinoFR
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 28 MAY 2004
Disposition Event:
Disposition History: n/a
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Drafter: n/a
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Executive Order: 11652 GDS
Errors: n/a
Film Number: n/a
From: NATO
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Original Classification: CONFIDENTIAL
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Original Previous Classification: n/a
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